UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/992,165	11/06/2001	Stephen Sherman	60027.0045US01/BS01195	6370

23552 7590 01/02/2004

MERCHANT & GOULD PC
P.O. BOX 2903
MINNEAPOLIS, MN 55402-0903

EXAMINER	
SING, SIMON P	

ART UNIT	PAPER NUMBER
2645	

DATE MAILED: 01/02/2004

2

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/992,165	Applicant(s) SHERMAN ET AL.	
	Examiner Simon Sing	Art Unit 2645	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-21 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-21 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 06 November 2001 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: The phrase "AIN 10" in lines 26 and 29 of page 6 and lines 1 and 2 of page 7 should be changed to "AIN 100" per Figure 2 and line 8 of page 5 and line 13 of page 7.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, 12-17 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Skog US 5,930,701.

2.1 Regarding claim 1, Skog discloses a method for providing caller ID within mobile communications network when a terminating mobile terminal is unreachable (not registered) (Abstract; column 2, lines 15-19). Skog teaches:

receiving a call from a calling party directed to the terminating mobile terminal and obtaining caller identification information on the calling party (column 3, lines 49-62; column 6, lines 57-67; column 7, lines 1-4);

determining whether the terminating mobile terminal is reachable (registered) (column 6, lines 12-18, 29-67; column 7, lines 1-4);

if the terminating mobile terminal is not reachable, stored the caller identification (column 7, lines 1-4); and

if the terminating mobile terminal becomes reachable, forwarding the caller identification to the terminating mobile terminal (column 7, lines 48-67; column 8, lines 1-3).

2.2 Regarding claims 2-4, Skog teaches transmitting the caller identification to a SIM card of the terminating mobile terminal, and the caller identification can then be displayed to a user (column 7, lines 50-67, column 8, lines 1-3, 12-17).

2.3 Regarding claim 12, Skog teaches determining whether the terminating mobile terminal is re-registered (reachable) to receive calls (column 7, lines 50-62; column 8, lines 27-51).

2.4 Regarding claim 13, Skog teaches an application 420 queries a home location register for information indicating the terminating mobile terminal is ready to receive calls (column 8, lines 27-51).

2.5 Regarding claim 14, Skog discloses a method for providing caller ID within mobile communications network when a terminating mobile terminal is unreachable (not registered) (Abstract; column 2, lines 15-19). Skog teaches:

receiving a call from a calling party directed to the terminating mobile terminal and obtaining caller identification information on the calling party (column 3, lines 49-62; column 6, lines 57-67; column 7, lines 1-4);

querying a home location register (HLR) whether the terminating mobile terminal is reachable (registered) to receive calls (column 6, lines 29-67; column 7, lines 1-4);

if the terminating mobile terminal is not reachable, stored the caller identification in an application module (column 7, lines 1-4);

if the terminating mobile terminal becomes reachable, forwarding the caller identification to the terminating mobile terminal (column 7, lines 48-67; column 8, lines 1-3).

Storing the caller identification information in a SIM card and then displaying the caller identification information to a user (column 7, lines 50-67, column 8, lines 1-3, 12-17).

2.6 Regarding claim 15, Skog teaches determining whether the terminating mobile terminal is power on and is located in a service area to receive calls (column 7, lines 50-62; column 8, lines 27-51).

2.7 Regarding claim 16, Skog teaches determining from a home location register whether the terminating mobile terminal is ready to receive calls (column 8, lines 27-51).

2.8 Regarding claim 17, Skog discloses a system for providing caller ID within mobile communications network when a terminating mobile terminal is unreachable (not registered) (Abstract; column 2, lines 15-19), comprising:

a wireless switch (mobile switching center or MSC 40, figure 4) operative to receive a call from a calling party directed to the terminating mobile terminal (column 6, lines 57-67; column 7, lines 1-4);

a home location register (HLR) 50 operative

to obtain caller identification information on the calling party (column 6, lines 57-67; column 7, lines 1-4);

to determine whether the terminating mobile terminal is reachable (registered) to receive calls (column 6, lines 29-67; column 7, lines 1-4);

to send the caller identification information to a database for storage if the terminating mobile terminal is not reachable (column 6, lines 57-67; column 7, lines 1-4);

to forward the stored caller identification to the terminating mobile terminal if the terminating mobile terminal becomes reachable (column 7, lines 48-67; column 8, lines 1-3).

2.9 Regarding claim 19, Skog teaches that the terminating mobile terminal operative

to receive the stored caller identification information;

to store the caller identification information in a SIM card;

to display an indication of missed calls (short message); and

to display the caller identification information (column 7, lines 50-67, column 8, lines 1-3, 12-17).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 5, 6, 9, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Skog US 5,930,701 in view of Fusinato US 5,949,865.

Skog teaches receiving caller identification information, such as the directory number of the caller, but fails to teach that the information includes date and time of the call, and the name of the caller obtained from a calling name database.

However, fusinato discloses a calling name delivery in telephone networks. Fusinato teaches that the caller identification includes caller's name, obtained from a caller name (CNAM) database and date and time of a call.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Skog's reference with the teaching of Fusinato, so that the caller identification information would have included telephone

number and name of a caller, and the date and time of a call, because a caller's name would have been much closes associated with a caller than a telephone number, and the date and time would have let a called party determine whether information was out of date, such as the called party had talk to the caller since the caller identification information was received.

4. Claims 7, 8 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Skog US 5,930,701 in view of Farris US 5,805,997.

4.1 Regarding claims 7 and 18, Skog teaches determining whether the terminating mobile terminal is reachable by sending a Mobile Application Part (MAP) base signal from a mobile switch center (MSC) to a home location register (HLR) (column 7, lines 50-62), but fails to specifically teach that the MAP signal includes a IS-41 protocol.

However, Farris discloses using a cellular digital packet data in a cellular network. Farris teaches that IS-41 protocol is used for communications between a HLR and a MSC (column 7, lines 54-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Skog's reference with the teaching of Farris, so that a IS-41 protocol would have been used for transmitting signals from a MSC to a HLR, because IS-41 was a standard protocol used in North America cellular system for pre-call validation, and such modification would have made Skog's system usable in America.

4.2 Regarding claim 8, Skog teaches determining whether the termination mobile terminal is powered, and located in a wireless service area (column 7, lines 50-62).

5. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Skog US 5,930,701 in view of Foti US 5,974,309.

Skog teaches obtaining caller identification information from a wire-line telephone and storing the caller identification information in a database. Skog further teaches that a home location register (HLR) store a cellular subscriber's information, but fails to teach obtaining caller identification information from a HLR when a caller is a cellular subscriber.

However, Foti teaches using IS-41 signaling to query a HLR for calling line identification of a mobile station and sending the calling line identification to a called mobile station (column 4, lines 31-51).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Skog's reference with the teaching of Foti, so that the caller identification information would have been obtained from a HLR, and a IS-41 protocol would have been used for sending call identification information, because when a caller was a mobile subscriber, as taught by Skog and Foti, caller identification information would have been within a mobile subscriber's database located in a HLR, and an IS-41 protocol was a standard in North America cellular system, and such modification would have made Skog's system usable in America.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a) US 6,009,321 (WANG et al) discloses a system and method for call tracing in a wireless network.

b) US 6,400,947 (BRIGHT et al) discloses a caller line identification system and method for GSM and wireless network.

7. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Simon Sing whose telephone number is (703) 305-3221. The examiner can normally be reached on Monday - Friday from 8:30 AM to 5:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang, can be reached at (703) 305-4895. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4750.

S.S.

12/22/2003

FAN TSANG
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600